

**IN THE CLAIMS:**

1. (Currently amended) A process for preparing high-functionality polyisocyanates, which comprises

(i) preparation of an addition product (A) which contains only one group which is reactive toward isocyanate and at least two free isocyanate groups by reacting

(a) a diisocyanate or polyisocyanate I with

(b1) compounds having at least three groups which are reactive toward isocyanate or

(b2) compounds containing two groups which are reactive toward isocyanate or mixtures of (b1) and (b2),

where at least one of the components (a) or (b) has functional groups having differing reactivities toward the functional groups of the other component and the reaction ratio is selected so that the addition product (A) contains an average of only one group which is reactive toward isocyanate, and at least two free isocyanate groups.

(ii) optionally, intermolecular addition reaction of the addition product (A) to form a polyaddition product (P) containing an average of only one group which is reactive toward isocyanate and an average of more than two free isocyanate groups, and

(iii) reaction of the addition product (A) and/or the polyaddition product (P) with a diisocyanate or polyisocyanate II.

2. (Original) A process as claimed in claim 1, wherein the diisocyanate or polyisocyanate I is different from the diisocyanate or polyisocyanate II.

3. (Original) A process as claimed in claim 1 or 2, wherein the diisocyanate or polyisocyanate I used is tetramethylene diisocyanate, tetramethylene diisocyanate trimer, hexamethylene diisocyanate, hexamethylene diisocyanate trimer, dodecyl diisocyanate, isophorone diisocyanate trimer, 4-isocyanatomethyloctamethylene 1, 8-diisocyanate, diphenylmethane 4, 4'-diisocyanate or a mixture thereof.

4. (Currently amended) A process as claimed in claim 1 or 2, wherein the diisocyanate or polyisocyanate I has isocyanate groups of differing reactivity and comprises tolylene 2,4-diisocyanate, tolyene 2,6-diisocyanate, diphenylmethane 2,4'-diisocyanate, phenylene 1,3- and 1,4-diisocyanate, naphthylene 1,5-diisocyanate, tolidine diisocyanate, triisocyanatotoluene, biphenyl diisocyanate, isophorone diisocyanate, 2-butyl-2-ethylpentamethylene diisocyanate, 2-isocyanatopropylcyclohexyl isocyanate, 3 (4)-isocyanatomethyl-1-methylcyclohexyl isocyanate, 1,4-diisocyanato-4-methylpentane, 4-methylcyclohexane 1,3-diisocyanate, dicyclohexylmethane 2,4'-diisocyanate ~~and~~ or mixtures thereof.

5. (Currently amended) A process as claimed in claim 1, wherein the diisocyanate or polyisocyanate II comprises tolylene 2,4-diisocyanate, tolylene 2,6-diisocyanate, diphenylmethane 4,4'-diisocyanate, diphenylmethane 2,4'-diisocyanate, ~~higher homologues of~~

polymeric diphenylmethane diisocyanate, naphthylene 1,5-diisocyanate, tolidine diisocyanate, phenylene 1,3- and 1,4-diisocyanate, triisocyanatotoluene, biphenyl diisocyanate, tetramethylene diisocyanate, hexamethylene diisocyanate, dodecyl diisocyanate, lysine alkyl ester diisocyanate, where alkyl is C<sub>1</sub>- C<sub>10</sub>-alkyl, isophorone diisocyanate, 2-methylpentamethylene diisocyanate, 2,2,4- or 2,4,4-trimethylhexamethylene 1,6-diisocyanate, 1,3-diisocyanatocyclohexane, ~~and~~ 1,4-diisocyanatocyclohexane, 3(4)-isocyanatomethyl-1-methyl-1-isocyanatocyclohexane, 2-butyl-2-ethylpentamethylene diisocyanate, 4-isocyanatomethyloctamethylene 1,8-diisocyanate, 2-isocyanatopropylcyclohexyl isocyanate, 2-methylcyclohexane 1,3-diisocyanate, ~~or~~ 4-methylcyclohexane 1,3-diisocyanate, dicyclohexylmethane 4,4'-diisocyanate, ~~and~~ dicyclohexylmethane 2,4'-diisocyanate, 1,3-bis(isocyanatomethyl) cyclohexane, ~~or~~ 1,4-bis(isocyanatomethyl) cyclohexane, xylylene diisocyanate, tetramethylxylylene diisocyanate and ~~oligoisocyanates or polyisocyanates~~ isocyanates prepared from the isocyanates listed by coupling by means of urethane, allophanate, urea, biuret, uretdione, amide, isocyanurate, carbodiimide, uretonimine, oxadiazinetriene or iminooxadiazinedione structures, or ~~from among mixtures thereof of the isocyanates mentioned.~~

6. (Currently amended) A process as claimed in claim 1, wherein, in the reaction of the addition product (A) and/or the polyaddition product (P) with the diisocyanate or polyisocyanate II, the ratio of isocyanate groups of the diisocyanate or polyisocyanate II to the isocyanate-reactive groups of the addition product (A) and/or the polyaddition product (P) is selected so that at least 10%, ~~preferably at least 40%~~, of the NCO groups of the diisocyanate or polyisocyanate II are reacted.

7. (Currently amended) A process as claimed in claim 1, wherein the isocyanate-reactive groups of the components (b1) and/or (b2) are selected from ~~among~~ hydroxyl groups, mercapto groups, amino groups and mixtures thereof.

8. (Currently amended) A process as claimed in claim 1, wherein the diisocyanate or polyisocyanate I used is isophorone diisocyanate, isophorone diisocyanate trimer, tolylene 2,4-diisocyanate, ~~or~~ diphenylmethane 2,4'-diisocyanate, or mixtures thereof and the diisocyanate or polyisocyanate II used is hexamethylene diisocyanate, a hexamethylene diisocyanate oligomer containing isocyanurate, uretdione, urethane, allophanate, iminooxadiazinedione, or biuret groups ~~mixture~~, diphenylmethane 4,4'-diisocyanate, diphenylmethane 2,4'-diisocyanate, a mixture of diphenylmethane diisocyanates and ~~higher homologues~~ polymeric diphenylmethane diisocyanate (~~polymeric MDI~~) or a mixture of the isocyanates listed.

9. (Currently amended) A process as claimed in claim 1, wherein the compounds (b1) having groups which are reactive toward isocyanate are glycerol, trimethylolmethane, trimethylolethane, trimethylolpropane, 1,2,4-butanetriol, tris(hydroxymethyl) aminomethane, tris(hydroxyethyl) aminomethane, 2-amino-1, 3-propanediol, 2-amino-2-methyl-1, 3-propanediol, diethanolamine, dipropanolamine, diisopropanolamine, ethanolpropanolamine, bis(aminoethyl) amine, bis(aminopropyl) amine, trisaminononane, pentaerythritol, bis(trimethylolpropane), trifunctional polyetherols, ~~or~~ tetrafunctional polyetherols, or

polyesterols and the compounds (b2) used are ethylene glycol, diethylene glycol, triethylene glycol, tripropylene glycol, neopentyl glycol, 1,2-butanediol, 1,3-butanediol, ~~and~~ 1,4-butanediol, 1,2-pentanediol, 1,3-pentanediol, ~~and~~ 1,5-pentanediol, hexanediol, propane-1, 2-dithiol, butane-1, 2-dithiol, mercaptoethanol, mercaptopropanol, mercaptobutanol, ethylenediamine, tolylenediamine, isophoronediamine, cysteamine, ethanolamine, N-methylethanolamine, propanolamine, isopropanolamine, 2-(butylamino) ethanol, 2-(cyclohexylamino) ethanol, 2-amino-1-butanol, 2-(2'-aminoethoxy) ethanol, ~~or higher~~ alkoxylation products of ammonia, 4-hydroxypiperidine, 1-hydroxyethylpiperazine, aminopropanethiol, ~~or~~ bifunctional polyetherols or polyesterols.

10. (Currently amended) A high-functionality polyisocyanate, ~~which can be~~ prepared as claimed in claim 1.

11. (Currently amended) A high-functionality polyisocyanate ~~which can be~~ prepared as claimed in claim 1 and which has both aliphatically bound and aromatically bound isocyanate groups.

12. (Currently amended) The ~~use~~ addition of a polyisocyanate as claimed in claim 10 ~~for producing to a paints and, to a varnishes, to a coatings, to an adhesives, to a sealants, to a pourable elastomers and/or, or to a foams.~~

13. (Currently amended) A polyaddition product ~~obtainable~~ obtained using a high-functionality polyisocyanate as claimed in claim 10.